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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,977	08/27/2003	Paul D. Ringgenberg	007420-0112-999	6209

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EXAMINER

RAEVIS, ROBERT R

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,977	RINGGENBERG ET AL.	
	Examiner	Art Unit	
	Robert R. Raevis	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 11-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11-8-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 22, replace " . " (of line 9) with a -- ; --; "said single phase collection apparatus" lacks antecedent basis.

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Shammai et al.(2003/0066646)

Shammai et al teach a method for down hole fluid sample collection comprising the steps of: providing a tube 34 with a first (lower) and second (upper) end, and first 56 and second 54 pistons within the tube; inserting nitrogen gas in the space 62 between the pistons (Paragraphs 58 and 61-64); lowering the assembly down hole to obtain a sample; collecting a formation fluid sample in a space between the first lower end of the tube and first piston; and raising the tube with the sample (Paragraphs 94,95). (Note: Support for all of the above is found in the provisional application.)

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shammai et al. (2003/0066646)

Shammai et al teach (Figure 4) a method for down hole fluid sampling of a single phase, including: forcing a sample piston 54 and charging piston 56 together within a bottle 34 to purge existing gas from a chamber 62 (Paragraph 60); attaching a nitrogen

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gas source to the charging piston 56 via threads 94, and forcing gas there through the piston into the pressurized gas chamber 62 (Para 58); removing the gas source; inserting the bottle into a tool 36; lowering the tool into a bore to a desired formation depth; allowing hydrostatic pressure from the bore to force the pistons together to further pressurize the gas (Para 94); pumping fluid into the apparatus (Para 95, first 5 lines); and removing the apparatus from the bore. (Note: Support for all of the above is found in the provisional application.)

Shammai does not state that the apparatus is removed from the tool; and does not say how much gas is removed.

As to claim 22, it would have been obvious to remove the apparatus from the tool to allow for cleaning and/or repair and/or seal replacement of the apparatus. In addition, it would have been obvious to purge all ("any") gas because a Shammai's "suitable deep" (Para 59) comment suggests simply fully advancing the piston to assure that a sufficient quantity (concentration) of nitrogen gas is subsequently inserted to insure operation.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolze et al. (2002/0060067)

Bolze et al teach (lower ½ of Figure 13A) collection tool, comprising: bottle 110 that has ends and axial bore; a sample piston (line from 123 point to it) in the bore to form a collection chamber (arrow for 124 points to it) within the bore, between the lower end of the bottle and the piston; a charging piston (line 121 points to it in lower ½ of

Figure 13C) in the bore above the sample piston, to form a pressurized gas chamber (line 122 points to it) between the pistons. The lower end of the bottle is fluidly connected to "formation fluid" via "valve 150" (Para 0100, lines 1-2) and the upper end of the bottle is connected to a "valve 158 into pressurization cavity 120" (Para 0100, lines 13). The device is lowered into a bore for sampling, and subsequently raised with that sample.

Bolze does not call his "upper" end a "bottom" (Applicant's claim 10) as claimed, and does not state that there is a cap separating valve 158 from chamber 120.

As to claim 10, it would have been obvious to invert the assembly of Figure 13A 180 degrees, as the sampling operation is gravity independent, resulting in Bolze's "upper" end being properly called a "bottom" end as claimed. In addition, it would have been obvious to employ a cap for the end of the bottle to provide for a fluid passage between chamber 120 and valve 158 as a cap would permit for disassembly of the device to allow for cleaning and/or repair and/or assembly.

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipate by Bolze et al (2002/0060067).

See comments above.

General Comments:

Shammai et al teach (Figure 4) a formation fluid sample bottle, including: tube 34 with enclosed top end 44 and open bottom end (around cap 46); sample piston 56 that

forms a sample chamber 64 between the piston and bottom end; and charging piston 54. However, the sample piston 56 does not form the sample chamber "between the *enclosed top end* and said sample piston" (italics added, line 4 of Applicant's claim 1, and line 7 of claim 7).

Shammai et al teach (Figure 3) a body 56 with threaded axial bore; check valve 8i inserted into the axial bore of the body. However, Shammai does not suggest the combination of the last 6 lines of Applicant's claim 20 with remaining claim limitations.

Bolze et al teach (Figure 13) a formation fluid sample collector that employs two pistons within a single bottle. However, Bolts's does not employ a "piston" (line 11 of Applicant's claim 1) that "includes a valve" (line 11 of Applicant's claim 1). Bolze does not suggest the combination of the last 6 lines of Applicant's claim 20 with remaining claim limitations. In addition, Boltz does not employ the step of "forcing a sample piston...pressurized gas chamber" (lines 3-5 of Applicant's claim 22).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rowe

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